## DETAILED ACTION

1.    This Action is in response to Applicant's amendment filed on 04/28/2009. Claims

29-39 and 41-45 are now allowed in the present application.

### *Continued Examination Under 37 CFR 1.114*

2.    A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection.  Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114.  Applicant's submission filed on

02/26/2009 has been entered.

### EXAMINER'S AMENDMENT

3.    An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with John R. Lastova on 05/12/2009.


4.    The application has been amended as follows:

### IN THE CLAIMS

29.    (Currently Amended) A method of optimizing the timing offsets with which data

frames are transmitted over the Iur/Iub interfaces of a UMTS Terrestrial Radio Access

Network, UTRAN, the method comprising:

for a given Iur/Iub interface or set of Iur/Iub interfaces over which identical user plane data is to be sent, defining a duration of a data frame receiving window for use by the receiving node(s);

transmitting data frames from a sending node with an initial timing offset;

reducing the timing offset at the sending node in a stepwise manner using a relatively small step value $\alpha$; and

adjusting the timing offset at the sending node by increasing the timing offset using a relatively large adjustment value $\beta$ in response to the receipt of one or more late time of arrival error reports at the sending node,

wherein the relatively small step value $\alpha$ is smaller than the relatively large adjustment value $\beta$, and wherein $\beta=k\alpha$ and k is a constant greater than 1.

31.    (Currently Amended) A method of optimizing the timing offsets with which data frames are transmitted over the Iur/Iub interfaces of a UMTS Terrestrial Radio Access Network, UTRAN, the method comprising:

for a given Iur/Iub interface or set of Iur/Iub interfaces over which identical user plane data is to be sent, defining a duration of a data frame receiving window for use by one or more receiving node(s);

transmitting data frames from a sending node with an initial timing offset;

reducing the initial timing offset using a first relatively small timing offset value $\alpha$ until a report is received that a transmitted data frame is outside of the data frame

receiving window;

in response to the report, increasing the reduced timing offset using a second relatively large timing offset adjustment value $\beta$;

at the one or more receiving nodes, collecting and/or computing time of arrival statistics for received data frames;

reporting said statistics to the sending node; and

adjusting the timing offset at the sending node on the basis of the received statistics, wherein $\beta=k\alpha$ and k is a constant greater than 1.

39.    (Currently Amended) A node for use in a UMTS Terrestrial Radio Access Network, UTRAN,  where for a given lur/lub interface or set of lur/lub interfaces over which identical user plane data is to be sent, there is a data frame receiving window having a defined duration, the node comprising:

a transmitter for transmitting data frames to one or more receiving nodes via lub/lur interfaces with an initial timing offset;

electronic control circuitry arranged to:

reduce by an amount $\alpha$ the timing offset in a stepwise manner, and

adjust the timing offset by increasing an amount $\beta$, increase the reduced timing offset in response to the receipt of one or more late time of arrival error reports, wherein the relatively small step value $\alpha$ is smaller than the relatively large adjustment value $\beta$, and wherein $\beta=k\alpha$ and k is a constant greater than 1.

40. (Cancelled).

41.    (Currently Amended) A node according to claim ~~40~~ 39, wherein the increase exceeds a combination of multiple steps.

42.    (Currently Amended) A node for use in a UMTS Terrestrial Radio Access Network, UTRAN, the node comprising:

means for transmitting data frames to one ore more receiving nodes via Iub/Iur interfaces with an initial timing offset;

means for reducing the initial timing offset using a first relatively small timing offset value $\alpha$ until a report is received that a transmitted data frame is outside of a data frame receiving window;

means, in response to the report, for increasing the reduced timing offset using a second relatively large timing offset adjustment value $\beta$; wherein $\beta=k\alpha$ and k is a constant greater than 1, and

means for receiving statistical data sent periodically from the or each receiving node and relating to the times of arrival of data frames at respective receiving nodes and for adjusting the timing offset on the basis of the received statistics.

### Allowable Subject Matter

5.    Claims 29-39 and 41-45 are allowed.

6.    The following is an examiner's statement of reasons for allowance: Consider

claims 29, 31, 39 and 42, the prior arts of records disclose a method of optimizing the

timing offsets with which data frames are transmitted over the Iur/Iub interfaces of a

UMTS Terrestrial Radio Access Network, UTRAN, the method comprising: for a given

Iur/Iub interface or set of Iur/Iub interfaces over which identical user plane data is to be

sent, defining a duration of a data frame receiving window for use by the receiving

node(s); transmitting data frames from a sending node with an initial timing offset.

However, after the amendment to the claims, applicant's remarks have been

considered and found to be persuasive. In agreement with the applicant's remarks, the

prior arts failed to disclose "reducing the timing offset at the sending node in a stepwise

manner using a relatively small step value α; and adjusting the timing offset at the

sending node by increasing the timing offset using a relatively large adjustment value $\beta$

in response to the receipt of one or more late time of arrival error reports at the sending

node, wherein the relatively small step value α is smaller than the relatively large

adjustment value $\beta$, and wherein $\beta=k\alpha$ and k is a constant greater than 1."

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee.  Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

### *Conclusion*

7.     Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Marcos Batista, whose telephone number is (571) 270-

5209. The Examiner can normally be reached on Monday-Thursday from 8:00am to

5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached at (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.  For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.


*/Marcos Batista/*
Examiner

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617

06/27/2009